

CLAIMS

What is claimed is:

1. A system for integrating a plurality of short-range communication protocols, comprising:
a signaling protocol for enabling an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols.
2. The system of claim 1, wherein the plurality of short-range communication protocols operate in a same frequency area.
3. The system of claim 2, wherein the frequency area is a 2.4GHz frequency band.
4. The system of claim 1, wherein the plurality of short-range communication protocols is selected from a group comprising a Bluetooth communication protocol, an LEE communication protocol and an RFID communication protocol.
5. The system of claim 4, further comprising:
a signaling protocol for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules using the LEE protocol.
6. The system of claim 4, further comprising:
a signaling protocol for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules using the RFID protocol.
7. The system of claim 1, wherein the signaling protocol comprises a first parameter, which indicates the plurality of communication modules to which an upper layer command may be directed.

8. The system of claim 7, wherein the signaling protocol comprises a second parameter, which indicates an order of the plurality of communication modules in the first parameter:

9. The system of claim 1, wherein the enhanced host controller comprises at least one signaling protocol for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules employing at least one of the plurality of short-range communication protocols.

10. A communication device for integrating a plurality of short-range communication protocols, comprising:

- an RF transceiver;
- a plurality of communication modules;
- a host capable of using an enhanced signaling protocol; and
- an enhanced host controller in communication with the host and the plurality of communication modules, wherein the enhanced host controller employs the enhanced signaling protocol to enable use of the RF transceiver to be shared between the plurality of communication modules.

11. The device of claim 10, wherein the plurality of short-range communication protocols operate in a same frequency area.

12. The device of claim 11, wherein the frequency area for the plurality of short-range communication protocols is a 2.4 GHz frequency band.

13. The device of claim 10, wherein the plurality of short-range communication protocols is selected from a group comprising a Bluetooth communication protocol, an LEE communication protocol and an RFID communication protocol.

14. The device of claim 13, further comprising:
a signaling protocol for enabling the enhanced host controller to communicate with at least one of the communication modules using the LEE protocol.
15. The device of claim 14, wherein the enhanced host controller translates information received from the communication module using the LEE protocol into a readable format for the host.
16. The device of claim 13, further comprising:
a signaling protocol for enabling the enhanced host controller to communicate with a communication module using the RFID protocol.
17. The device of claim 16, wherein the enhanced host controller translates information received from the communication module using the RFID protocol into a readable format for the host.
18. The device of claim 10, wherein the device is one of a cellular phone, laptop computer or a PDA.
19. The device of claim 10, wherein the enhanced host controller comprises at least one signaling protocol for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules employing at least one of the plurality of short-range communication protocols.
20. A method of communicating between a first device and a second device, the first device having an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols, the method comprising:

selecting a communication module, in the first device, to transmit a wireless communication to the second device; and

transmitting the wireless communication, from the first device, to the second device within the first device's radio range.

21. The method of claim 20, wherein the communication module is selected according to a first parameter, wherein the first parameter indicates which of the plurality of communication modules is to be selected.

22. The method of claim 20, further comprising:

receiving, at the first device, a wireless communication from the second device; and processing, at the first device, the wireless communication.

23. A system for integrating a plurality of short-range communication protocols, comprising:

a processor;

a memory, communicatively connected to the processor;

a program stored in the memory, including,

a module for enabling an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols.

24. The system of claim 23, wherein the plurality of short-range communication protocols operate in a same frequency area.

25. The system of claim 24, wherein the frequency area for the plurality of short-range communication protocols is a 2.4 GHz frequency band.

26. The system of claim 23, wherein the plurality of short-range communication protocols is selected from a group comprising a Bluetooth communication protocol, an LEE communication protocol and an RFID communication protocol.

27. The system of claim 26, further comprising:
a module for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules using the LEE protocol.

28. The system of claim 26, further comprising:
a module for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules using the RFID protocol.

29. The system of claim 23, wherein the module for enabling the enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols, comprises: a first parameter, which indicates the plurality of communication modules to which an upper layer command may be directed.

30. The system of claim 29, wherein the module for enabling the enhanced host controller to share a use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols, comprises: a second parameter, which indicates an order of the plurality of communication modules in the first parameter.

31. The system of claim 23, wherein the enhanced host controller comprises at least one signaling protocol for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules employing at least one of the plurality of short-range communication protocols.

32. A system for integrating a plurality of short-range communication protocols, comprising:

means for enabling an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols; and

means for enabling the enhanced host controller to communicate with at least one of the plurality of communication modules employing at least one of the plurality of short-range communication protocols.

33. The system of claim 32, wherein the plurality of short-range communication protocols operate in a same frequency area.

34. The system of claim 33, wherein the frequency area for the plurality of short-range communication protocols is a 2.4 GHz frequency band.

35. The system of claim 32, wherein the plurality of short-range communication protocols is selected from a group comprising a Bluetooth communication protocol, an LEE communication protocol and an RFID communication protocol.

36. The system of claim 32, wherein the means for enabling an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols, comprises: a first parameter, which indicates the plurality of communication modules to which an upper layer command may be directed.

37. The system of claim 36, wherein the means for enabling an enhanced host controller to share use of an RF transceiver between a plurality of communication modules using

a plurality of short-range communications protocols, comprises: a second parameter, which indicates an order of the plurality of communication modules in the first parameter.